

REMARKS

Reconsideration of the patent application in view of the preceding amendments and the following remarks is respectfully requested.

Objection to Claims

In the office action dated 3/30/2004, the Examiner objected to claims. Specifically, the Examiner cited informalities. In response, the applicants have amended the claims to cure the cited informalities. Withdrawal of the rejection is respectfully requested.

Rejection of the Claims under 35 U.S.C. § 102(b) and § 103

In the office action dated 3/30/2004, the Examiner rejected claims under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a). The Examiner stated that the claims 1, 2, 4, 5, and 7 were anticipated by U.S. patent 5,400,072 issued to Izumi, et al. (hereinafter referred to as the Izumi, et al reference). In addition, the Examiner stated that the remaining claims are unpatentable over the Izumi, et al reference in view of other cited art. The Applicants respectfully traverse.

The present invention introduces a self-contained camera subassembly that is sealed to prevent ingress of contaminants. The camera subassembly of the present

invention includes all of the critical optical elements and image capture elements are sealed within a housing. The optical elements include at least one lens coupled to an electrically controlled movement apparatus that allows the camera assembly to adjust the distance between the lens and the image capture device without any mechanical input.

With regard to claims 1 to 28 and 35

The examiner cited the Izumi, et al reference as teaching the electrically controlled lens system. The Izumi, et al reference fails to disclose the sealed camera subassembly of the present invention that uses an electrically controlled lens system as required by amended claim 1. Specifically, the Examiner cited column lines 30 to 60 of column 24 in Izumi, et al reference which state:

Next, description will be given of the system for automatically controlling the back focus of the lens. In the video camera unit in which the holder 2 incorporating the lenses and the holder 1 incorporating the image pickup device 6 are assembled, the back focus at the reference surface 403 is detected. The back focus is detected in the following manner. A striped black and white pattern is set at a certain imaging distance, for example, and is shot by means of the video camera unit. Then, electrical signals thus obtained are processed by the high-pass filter so as to taken out the high frequency component of the signal. Since the high frequency component is maximized in just focus, that is, at the time when the back focus reaches the certain value, **the electrical signal at this time is input to the holder drive system which serves to adjust the distance between the holders 1 and 2**, thus determining the point at which the high frequency component of the signal is maximized. **Subsequently, ultraviolet-setting resin is poured by an amount enough to satisfactorily fix the groove 400 of the holder 1 and the projection 401 of the holder 2 to each other, and a predetermined quantity of ultraviolet rays is applied to thereby assure bonding and fixing in an instant.** Further, hot melt bonding agent may be used as other fixing method. (Emphasis added.)

The holder system of the Izumi, et al reference clearly refers to an industrial robotic system used at manufacturing time to create a fixed-focus lens system. Specifically, auto-

focus system is used to control the holder drive system to determine the proper focus point for a striped black and white pattern at a desired imaging distance. Once the desired focus point is located then “ultraviolet-setting resin is poured by an amount enough to satisfactorily fix the groove 400 of the holder 1 and the projection 401 of the holder 2 to each other, and a predetermined quantity of ultraviolet rays is applied to thereby assure bonding and fixing in an instant.” This creates a fixed-focus system wherein the two-lenses may no longer be adjusted. This does not anticipate the adjustable focus system of the present invention that may adjust the distance between lenses when the camera system is being used.

The Examiner cited U.S. patent 5,572,372 issued to Sekine, et al. (hereinafter referred to as the Sekine, et al reference) as teaching that it is well known in the art to drive a lens group using an electric coil. However, the Sekine, et al reference makes no teaching of creating a self-contained sealed camera subassembly. The creation of a self-contained sealed camera subassembly is a critical feature of the present invention. As previously set forth, a sealed camera subassembly allows all the precision work and clean work to be performed at a single facility to create the sealed camera subassembly. The camera subassembly may then be shipped to a low labor cost assembly plant for the creation of end-user consumer products. Since the Sekine, et al reference does not disclose, teach, nor even hint toward the creation of a sealed assembly, the sealed camera assembly of the present invention is patentable over the Sekine, et al reference.

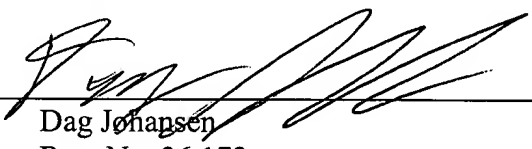
CONCLUSION

In view of the foregoing, it is submitted that the claims are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance is earnestly solicited at the earliest possible date.

Respectfully submitted,

STATTLER, JOHANSEN & ADELI LLP

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Dag Johansen
Reg. No. 36,172

Stattler Johansen & Adeli LLP
PO Box 51860
Palo Alto, CA 94303-0728
Phone: (650) 752-0990 ext.101
Fax: (650) 752-0995